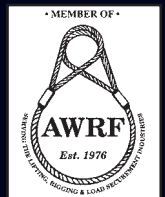


HEAVY DUTY ROAD PLATE HOIST RING



ADB[®] is ready and able to serve you with other quality products.



FAST-LOK™ PLATE LIFTING SYSTEM



HEAVY DUTY SAFETY LIFT EYE



LUG-LOK™ HOIST RINGS



BAR-TITE™ HOIST RINGS



WELD-IN THREADED INSERTS



HEAVY DUTY SWIVEL PIVOT LIFT PLATE



Headquarters:
 5740 Hunt Rd. • Valdosta, GA 31606
 Phone (800) 423-4425 • Fax (323) 725-8740
<http://americandrillbushing.com>
 email: adb@americandrillbushing.com

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WOMAN OWNED BUSINESS ENTERPRISE

HOIST RINGS



**HEAVY DUTY®
HOIST RING**



**SAFETY ENGINEERED
HOIST RING**



**HEAVY DUTY® SIDE PULL
HOIST RING**



**EZ-TORQUE™
HOIST RING**



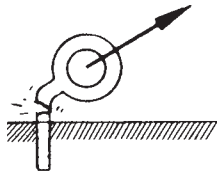
SAFETY HOIST RINGS

Safety Hoist Rings provide the maximum for lifting heavy loads and are designed to replace conventional lifting hardware and devices that have been outmoded by new safety regulations. As with all mechanical devices, regular inspection for wear and strict adherence to use instruction is necessary to prevent mis-use failure.

THE STANDARD OF PERFORMANCE

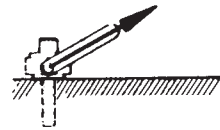
High safety standards are especially important where every load lifted is a heavy load. American's Safety Hoist Rings provide the kind of safety that protects men and material against accidents before they occur ... accidents caused when eyebolts break or lifting hooks disengage. Safety Hoist Rings will not yield to heavy side loads within their rated capacity. Unlike eyebolts, the Hoist Ring must pivot 180° and swivel 360° to compensate for pitch, roll and sway when lifting heavy unbalanced loads.

See what happens when heavy side loads are applied to a conventional eyebolt.



EXCESSIVE SIDE LOADS CAN CAUSE BOLT FAILURE.

The same load applied to an American Safety Engineered Hoist Ring is translated into a primary tension load at the screw and normal to the screw axis.



HIGH TENSION LOADS ARE WELL WITHIN THE DESIGNED SAFETY LIMITS OF THE STRESSED HOIST RING.

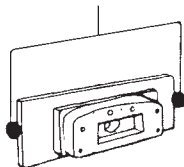
SAFETY HOIST RING: Pivot and swivel to compensate for pitch, roll and sway when lifting heavy, unbalanced loads

- Prevent lifting hooks from disengaging
- Made of highest quality alloy steel with certified heat treatment
- Available in 550, 800, 1,000, 2,500, 4,000, 5,000, 7,000, 8,000, 10,000, 15,000, 24,000, 30,000, 50,000, 75,000, 100,000, 150,000, 200,000, and 250,000 pound safe-load capacities (in any direction).

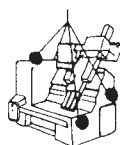
American's Safety Hoist Rings have been design tested. Adopt American's Safety Hoist Rings as your standard lifting device.

Certified Test Reports are available upon request.

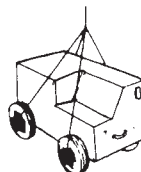
**REPLACES CONVENTIONAL EYEBOLTS FOR MAXIMUM LIFT
IN A WIDE VARIETY OF APPLICATIONS.**



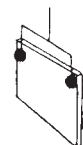
Large Dies and Fixtures



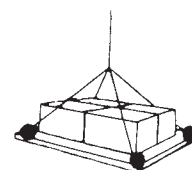
Heavy Machinery



Mobile Equipment



Structural Handling



Cargo Handling

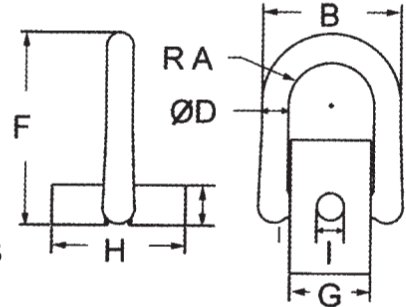
REPLACEMENT SCREWS

HOIST RING PART NUMBER	SCREW PART NUMBER	HOIST RING CAPACITY (LBS)	SCREW SIZE	EFFECTIVE TRHD. PROJ.	
23001	23021S	4,000	5/8-11 X 2	.78	SAFETY ENGINEERED
23002	23022S	4,000	5/8-11 X 2-1/4	1.03	
23003	23023S	4,000	5/8-11 X 2-1/2	1.28	
23004	23024S	2,500	1/2-13 X 2	.78	
23005	23025S	2,500	1/2-13 X 2-1/4	1.03	
23006	23026S	2,500	1/2-13 X 2-1/2	1.28	
23007	23027S	5,000	3/4-10 X 2-1/4	1.03	
23009	23029S	5,000	3/4-10 X 2-3/4	1.53	
23050	23041S	550	1/4-20 X 1-1/4	.54	
23051	23071S	800	5/16-18 X 1	.29	
23052	23072S	800	5/16-18 X 1-1/4	.54	
23053	23073S	1,000	3/8-16 X 1-1/4	.54	
23101	23121S	8,000	7/8-9 X 2-3/4	1.04	
23102	23122S	7,000	3/4-10 X 2-3/4	1.04	
23103	23123S	7,000	3/4-10 X 3-1/4	1.54	
23105	23125S	10,000	1-8 X 3	1.29	
23106	23126S	10,000	1-8 X 3-1/4	1.54	
23107	23127S	10,000	1-8 X 4	2.29	
23202	23222S	24,000	1 1/2-6 X 5-1/2	2.70	
23301	23318S	2,500	1/2-13 X 2	1.07	
23320	23022S	4,000	5/8-11 X 2-1/4	1.03	
23321	23023S	4,000	5/8-11 X 2-1/2	1.28	
23322	23024S	2,500	1/2-13 X 2	.78	
23323	23025S	2,500	1/2-13 X 2-1/4	1.03	
23324	23026S	2,500	1/2-13 X 2-1/2	1.28	
23325	23027S	5,000	3/4-10 X 2-1/4	1.03	
23327	23029S	5,000	3/4-10 X 2-3/4	1.53	
23328	23121S	8,000	7/8-9 X 2-3/4	1.04	
23329	23122S	7,000	3/4-10 X 2-3/4	1.04	
23330	23123S	7,000	3/4-10 X 3-1/4	1.54	
23331	23125S	10,000	1-8 X 3	1.29	
23332	23126S	10,000	1-8 X 3-1/4	1.54	
23333	23127S	10,000	1-8 X 4	2.29	
23401	23421S	15,000	1 1/4-7 X 4	1.89	
33101	33121S	8,000	7/8-9 X 3-1/4	1.20	HEAVY DUTY
33102	33122S	7,000	3/4-10 X 3-1/4	1.20	
33103	33123S	7,000	3/4-10 X 3-1/2	1.45	
33105	33125S	10,000	1-8 X 3-1/2	1.45	
33106	33126S	10,000	1-8 X 3-1/4	1.20	
33107	33127S	10,000	1-8 X 4-1/4	2.20	
33108	33119S	7,000	3/4-10 X 3	.95	
33112	33152S	550	1/4-20 X 1-1/2	.56	
33212	33252S	800	5/16-18 X 1-1/2	.56	
33214	33254S	800	5/16-18 X 2	1.06	
33312	33352S	1,000	3/8-16 X 1-1/2	.56	
33314	33354S	1,000	3/8-16 X 2	1.06	
33401	33421S	15,000	1 1/4-7 X 5-1/2	2.63	
33402	33419S	15,000	1 1/4-7 X 5	1.88	
33420	33429S	20,000	1 3/8-6 X 5-1/2	2.63	
33424	33422S	24,000	1 1/2-6 X 5-1/2	2.63	
33512	33554S	2,500	1/2-13 X 2-1/4	.75	
33515	33555S	2,500	1/2-13 X 2-1/2	1.00	
33516	33556S	2,500	1/2-13 X 2-3/4	1.25	
33612	33653S	4,000	5/8-11 X 2-1/4	.75	
33614	33654S	4,000	5/8-11 X 2-1/2	1.00	
33615	33655S	4,000	5/8-11 X 2-3/4	1.25	
33714	33754S	5,000	3/4-10 X 2-1/2	1.00	
33716	33756S	5,000	3/4-10 X 3	1.50	

HEAVY DUTY PIVOT LIFT PLATE



- Pivots 180°
- Material: Forged alloy steel
- Finish: Black Oxide per Mil C-13924B
- Safety Factor: 5:1
- Minimum tensile strength of 180,000 psi.
- 100% Magnetic Particle Inspected (Cadmium plated available)



PART NO.	*RATED LOAD	A	B	C	D	F	G	H	I	WEIGHT (LBS.)
36620	*7,000	1.40	5.10	1.70	1.00	7.33	3.00	5	3/4	10.54
36625	*10,000	1.40	5.10	1.70	1.00	7.33	3.00	5	1	10.38
36630	*15,000	2.00	6.75	2.50	1.25	8.28	4.00	6-5/8	1-1/4	12.06
36635	*24,000	2.00	6.75	2.50	1.25	8.28	4.00	6-5/8	1-1/2	11.9

Bolt/Coil insert not included

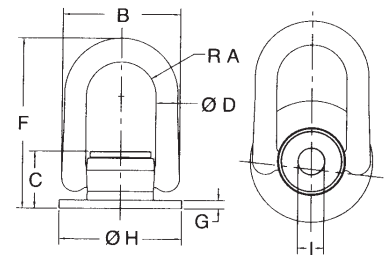
*Note: Rated load is based on 180,000 psi ultimate tensile strength of bolt or stud. If a bolt with lower strength is used or workpiece anchor material is incapable of supporting this weight, the applied load must be reduced accordingly.

Patent No.4,570,987*; 4,641,986*; 5,405,210

HEAVY DUTY SWIVEL/PIVOT LIFT PLATE



- Pivots 180°/Swivels 360°
- Material: Forged alloy steel
- Safety Factor: 5:1
- Minimum tensile strength of 180,000 psi.
- Finish: Black Oxide per Mil C-13924B
- 100% Magnetic Particle Inspected (Cadmium plated available)



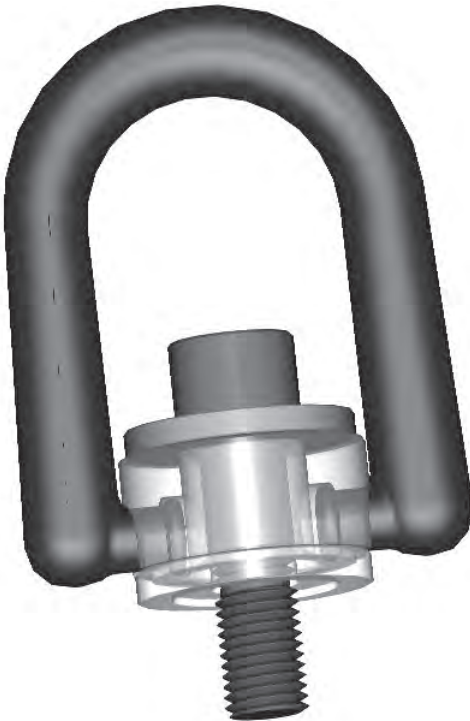
PART NO.	*RATED LOAD	A	B	C	D	F	G	H	I	WEIGHT (LBS.)
36600	*7,000	1.40	5.10	2.39	1.00	7.00	13/32	5	3/4	8.95
36605	*10,000	1.40	5.10	2.39	1.00	7.00	13/32	5	1	8.95
36610	*15,000	2.00	6.75	3.29	1.25	8.90	1/2	7	1-1/4	21.37
36615	*24,000	2.00	6.75	3.29	1.25	8.90	1/2	7	1-1/2	20.71

Bolt/Coil insert not included

*Note: Rated load is based on 180,000 psi ultimate tensile strength of bolt or stud. If a bolt with lower strength is used or workpiece anchor material is incapable of supporting this weight, the applied load must be reduced accordingly.

Patent No.4,570,987*; 4,641,986*; 5,405,210

SAFETY LIFTING DEVICES



American's Patented Heavy Duty Hoist Ring is setting the new standard for safety lifting products. Made from forged high strength alloy steel, the one piece body and ball eliminates shoulder pins. ADB's heavy duty hoist ring has 6 assembly parts versus 10 parts on other lifting devices and fewer components means savings and added safety for you.

Heavy Duty Hoist Rings are stronger than competitive lifting devices. They provide better value at lower cost to you, while providing the quality and safety you expect from the leader in safety lifting products. ADB, the original Safety Hoist Ring manufacturer.

U.S. Patent No. 4,570,987*, 4641,986*, 5,405,210
Other patents pending.

OVER 40 YEARS OF PROVEN RELIABILITY

 HEAVY DUTY® HOIST RINGS Patent No. 4,570,987*, 4,641,986*, 5,405,210	 THE "ORIGINAL" SAFETY ENGINEERED HOIST RINGS Patent No. 3,297,293*, 4,705,422*, 5,848,815	 UNIVERSAL LIFT RINGS Patent No. 4,557,513*	 HOIST RINGS
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NEW ITEMS

 SHACKLE HOIST RINGS Patent No. 5,823,588	 SIDE PULL HOIST RINGS	 BOLT TYPE ANCHOR SHACKLES	 ALLOY RINGS	 WELDABLE HOIST RINGS	 ROAD PLATE HOIST RINGS
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SAFETY ENGINEERED HOIST RINGS

DO NOT BE FOOLED!



Competitive products are assembled by drilling a hole through the shoulder pin and securing it to the body with a "roll pin".

**PATENT NO.
4,705,422**

**SHOULDER PIN
RETAINERS**

**SHOULDER
PIN**

**PATENT NO.
5,848,815**

**SHOULDER PIN
RETAINING
DOWELS**

**SHOULDER
PIN**

ADB uses shoulder pin retainers instead of roll pins to cap-
tivate the shoulder pins, on sizes up to 10,000 lbs. load
rating. On the larger sizes, we use shoulder pin retaining
dowels.

What you see below, IS NOT WHAT YOU GET FROM
COMPETITIVE HOIST RINGS!

This is ADB's original patented improved Safety
Engineered Hoist Ring.

These processes DO NOT require putting a hole
through the shoulder pin, we use an OD groove. This
allows the pin to rotate if necessary without shearing the
dowel or clip. ADB uses only hardened dowel pins for
assembly of hoist rings. If the shoulder pin should bind
against the bail for any reason (accumulation of dirt, rust,
improper loading etc.) the shoulder pin installed with a roll
pin is likely to shear, allowing the shoulder pin to come
out. This is not the case with ADB hoist rings.

This patented design allows the ADB hoist ring to be
disassembled, tested for compliance with safety standards
AND reassembled easily. This is a requirement by some
governmental agencies. ADB provides the EXTRAS you
expect, at no added cost to you, from the leader of quality
lifting devices. ADB the "original" Safety Hoist Ring.

ADB & ONLY ADB CAN OFFER YOU THIS SAFETY
ADVANTAGE.

DON'T ACCEPT LOOK ALIKE IMITATIONS!

40 years without a single claim.

No other manufacturer can make that statement.

SAFETY ENGINEERED HOIST RINGS: Pivot and
swivel to compensate for pitch, roll and sway when lifting
heavy, unbalanced loads • Prevent lifting hooks from
disengaging • Made of highest quality alloy steel with
certified heat treatment • Available in 550, 800, 1,000,
2,500, 4,000, 5,000, 7,000, 8,000, 10,000, 15,000, 24,000,
30,000, 50,000, 75,000, 100,000, 150,000, 200,000 and
250,000 pound safe-load capacities (in any direction).

American's Safety Hoist Rings have been design tested.

Certified Test Reports are available upon request.

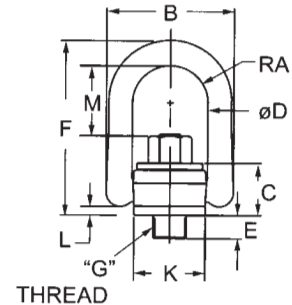
PATENT NO. 3,297,293*, 4,705,422*, 5,848,815

NEW ITEMS

HEAVY DUTY ROAD PLATE HOIST RING



- Pivots 180°/Swivels 360°
- Material: Forged alloy steel
- Safety Factor: 5:1
- Minimum tensile strength of 180,000 psi
- Finish: Black Oxide per Mil C-13924B
- 100% Magnetic Particle Inspected
(Cadmium plated available)



PART NO.	*RATED LOAD	A	B	C	D	E	F	G	K	TL ft./lb.	M	WEIGHT (LBS.)
36660	†10,000	1.40	5.10	2.05	1.00	1	7.00	1 1/4-7	2.81	230	2.95	8.09
36665	†10,000	1.40	5.10	2.05	1.00	1 1/2	7.00	1 1/2-6	2.81	230	2.95	8.22
36670	†15,000	2.00	6.75	2.87	1.25	1	9.22	1 1/4-7	3.88	470	3.74	18.32
36675	†15,000	2.00	6.75	2.87	1.25	1 1/2	9.22	1 1/2-6	3.88	470	3.74	18.80

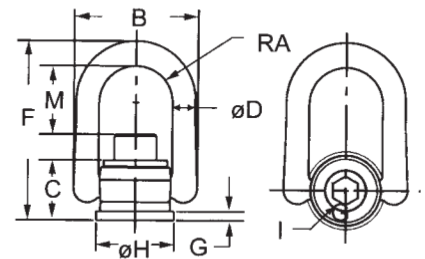
†Note: Rated load is based on 180,000 psi ultimate tensile strength of bolt or stud.
If a bolt with lower strength is used, the applied load must be reduced accordingly.

Patent No. 4,570,987*; 4,641,986*; 5,405,210

HEAVY DUTY WELD-MOUNT HOIST RING



- Pivots 180°/Swivels 360°
- Material: Forged alloy steel
- Safety Factor: 5:1
- Minimum tensile strength of 180,000 psi
- Finish: Black Oxide per Mil C-13924B
- 100% Magnetic Particle Inspected
(Cadmium plated available)



PART NO.	†RATED LOAD	A	B	C	D	F	G	H	I SHCS	M
36640	†5,000	1.00	3.50	1.63	0.75	5.47	1/4	2.45	5/8-11	2.46
36645	†10,000	1.50	5.10	2.30	1.00	7.64	3/8	3.51	1-8	3.22
36650	†24,000	2.00	6.75	3.12	1.25	9.50	1/2	4.70	1 1/4-7	3.63

†Note: Rated load applies to hoist ring assembly only. Workpiece material must be capable of supporting this weight. Welding should be done by certified welder for maximum safety.

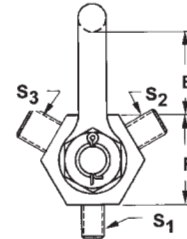
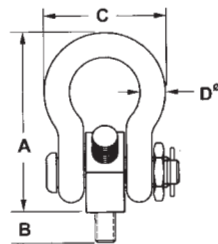
Patent No. 4,570,987*; 4,641,986*; 5,405,210

UNIVERSAL LIFT RINGS SUPER-COIL™ HOIST RING

UNIVERSAL LIFT RINGS



PAT. #4,557,513



Caution: Do not apply side load • For straight lift only
Listed capacities are maximum safe working load

Some typical applications for the American universal lift rings are:

1. Large Chucks
2. Milling Cutters
3. Dies
4. Broaches
5. Motors
6. Fixtures
7. Small Machines
8. Machined parts

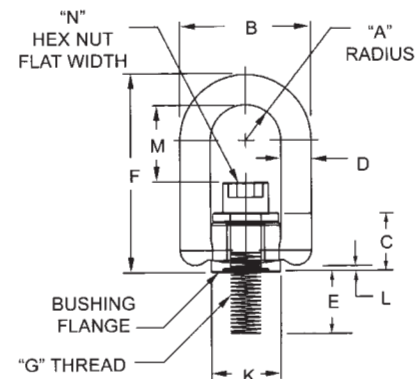
PART NUMBER		SCREW SIZES	CAPACITY (LBS)*	A	B	C	D	E	F	WEIGHT (lbs)
34005	S1	1/4-20	400	3-1/16"	1/2	2-1/8"	7/16	1-1/4"	1-3/8"	0.8
	S2	5/16-18	800	3-1/16"	1/2	2-1/8"	7/16	1-1/4"	1-3/8"	0.8
	S3	3/8-16	1400	3-1/16"	1/2	2-1/8"	7/16	1-1/4"	1-3/8"	0.8
34010	S1	1/2-13	2600	4-3/8"	3/4	3"	5/8	1-3/4"	2"	2.5
	S2	5/8-11	4000	4-3/8"	3/4	3"	5/8	1-3/4"	2"	2.5
	S3	3/4-10	6000	4-3/8"	3/4	3"	5/8	1-3/4"	2"	2.5

AMERICAN'S UNIVERSAL LIFT RING PROVIDES SIX COMMONLY USED THREAD SIZES
(1/4-20, 5/16-18, 3/8-16, 1/2-13, 5/8-11 AND 3/4-10).

SUPER-COIL™ HOIST RINGS



- Alloy Steel, Black Oxide Finish
- Standard coil thread sizes from 3/4" to 1 1/2"
- Excellent for temporary attachment to steel & construction material
- Range of movement: pivot 180° & swivel 360° to compensate for pitch, pull and sway when lifting unbalanced loads. Load ratings are for lifts in any direction.
- MINIMUM SAFETY FACTOR = 5:1
- Meets OSHA standards
- 100% Magnetic Particle Inspected
- Destructive testing by outside independent laboratories.
- ADB COIL BOLTS are included to ensure the integrity of the product.



PATENT #4,570,987 #4,641,986 #5,405,210
#5,732,991 OTHER PATENTS PENDING

PART NO.	RATE LOAD	A	B	C	D	E*	F	G** THD.	K	TL ft-lb	L	M	N	WT lbs
33716CT	5,000	1.00	3.50	1.50	.75	4.00	5.31	3/4	1.89	100	.17	2.31	1 1/8	2.3
33107CT	10,000	1.40	5.10	2.05	1.00	5.00	7.00	1"	2.81	230	.18	2.95	1 1/2	8.4
33401CT	15,000	2.00	6.75	2.87	1.25	6.00	9.22	1 1/4	3.88	470	.32	3.74	1 7/8	17.5
33424CT	24,000	2.00	6.75	2.87	1.25	7.00	9.22	1 1/2	3.88	800	.32	3.49	2 1/4	20.3

* Longer projections are available, call factory for quotation.

SAFETY HOIST RINGS

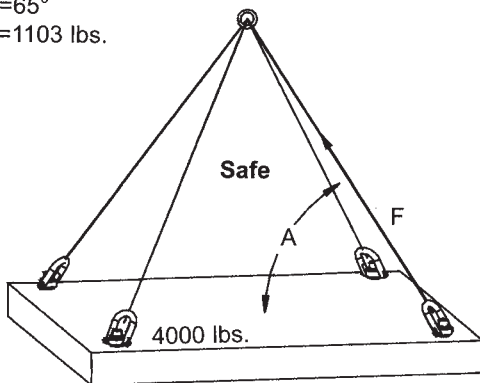
SAFETY PROCEDURES

1. IMPORTANT! The force on each hoist ring is not just the total weight divided by the number of hoist rings. The force can be greater at lower lift angles if loads are not evenly distributed. See below.

$F = \frac{W}{N \sin A}$
 $F =$ Force on each hoist ring
 $W =$ Total weight = 4000 lbs.
 $N =$ Number of hoist rings = 4
 $A =$ Lifting angle

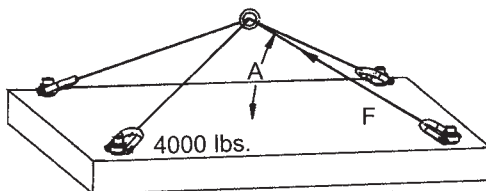
$A = 65^\circ, F = \frac{4000}{4 \sin 65^\circ} = 1103 \text{ lbs.}$
 $A = 14^\circ, F = \frac{4000}{4 \sin 14^\circ} = 4134 \text{ lbs.}$

$A = 65^\circ$
 $F = 1103 \text{ lbs.}$



$A = 14^\circ$
 $F = 4134 \text{ lbs.}$

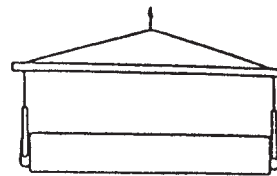
Unsafe



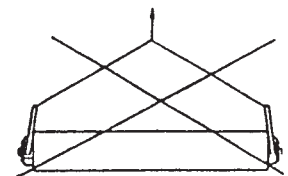
2. Never exceed the rated load capacity of the hoist ring. The 5:1 safety factor is required in case of mis-use such as overload or uneven loads.

3. Tensile strength of material to be lifted should be at least 80,000 lbs for full load rating. For lower tensile materials, through hole mounting with a bolt and washer on either side is required.

4. Do not allow hoist rings to bind. If necessary use a spreader bar to avoid binding. See example below.



Safe



Unsafe

5. Spacers should not be used between the hoist ring and the mounting surface.

6. Mounting surface must be flat and smooth for full contact with the safety hoist ring. Tapped mounting holes must be perpendicular to the mounting surface.

7. Mounting screws should be tightened to the recommended torque. Torque should be checked periodically as bolts could loosen in extended service.

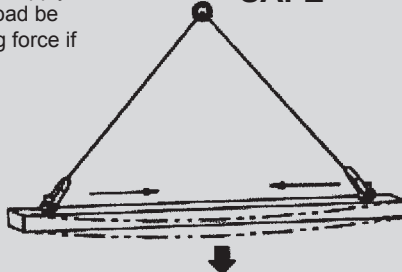
8. Never lift with any device, such as hooks, chains or cables, that could create side pulls or damage the bail.

9. Never apply shock loads and use good lifting practices. Always lift gradually. If shock loading ever occurs, the safety lifting device should be inspected using magnaflux.

10. After installation, always check that ring rotates and pivots freely in all directions.

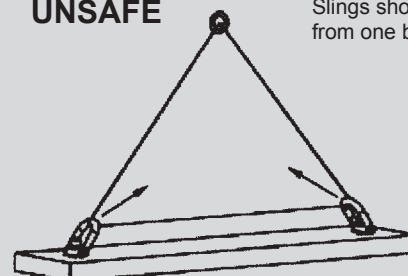
After slings have been properly attached to the hoist ring., apply force slowly. Watch the load be prepared to stop applying force if the load starts buckling.

SAFE



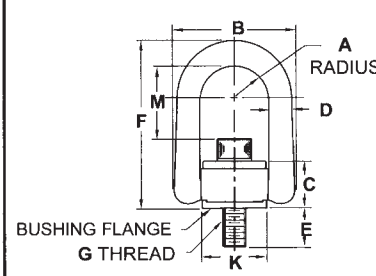
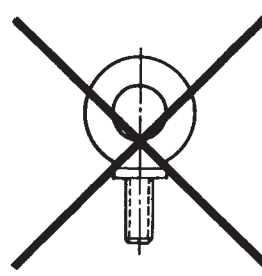
UNSAFE

Slings should be reeved from one ball to another.

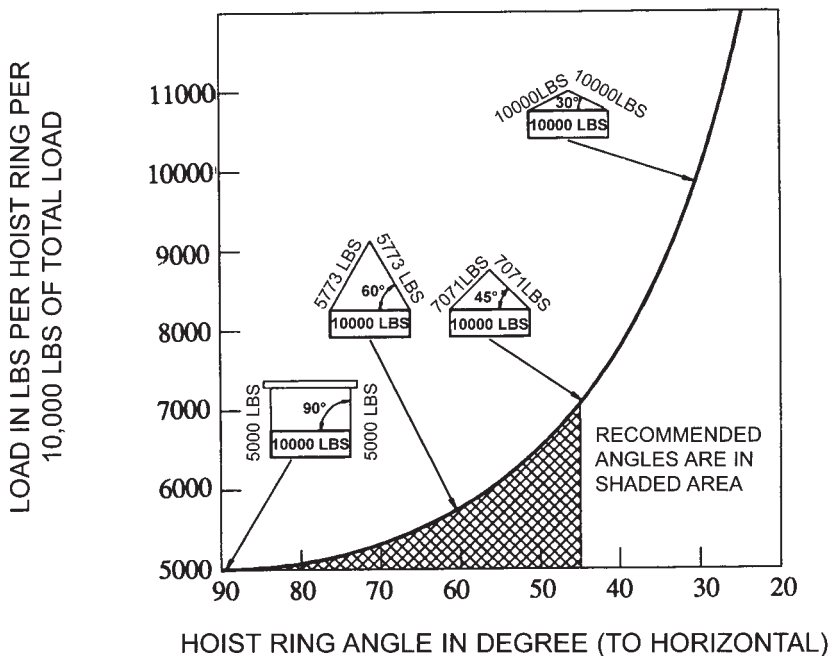


Use Hoist Rings for Added Lifting Safety

Side or angular pulling forces can cause eyebolts to twist, bend or break when heavy, angular, unbalanced loads are involved.

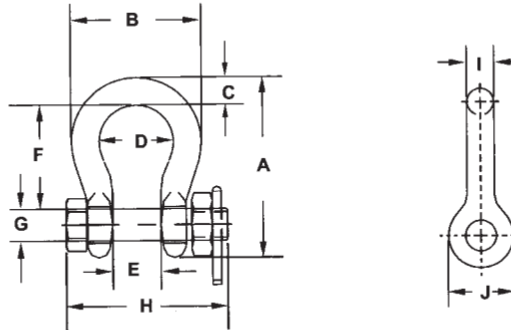
	THREAD SIZE	HEAVY DUTY HOIST RING		
		RATED LOAD CAPACITY/LBS.		
		STRAIGHT PULL	45° LIFT	90° LIFT
	1/4 -20	550	550	550
	5/16 -18	800	800	800
	3/8 -16	1000	1000	1000
	1/2 -13	2500	2500	2500
	5/8 -11	4000	4000	4000
	3/4 -10	5000	5000	5000
	7/8 -9	8000	8000	8000
	1-8	10000	10000	10000
	1-1/4 -7	15000	15000	15000
	1-3/8 -6	20000	20000	20000
	1-1/2 -6	24000	24000	24000
	THREAD SIZE	SHOULDER EYE BOLT		
		RATED LOAD CAPACITY/LBS.		
		STRAIGHT PULL	45° LIFT	90° LIFT
	1/4 -20	480	144	120
	5/16 -18	800	240	200
	3/8 -16	1200	360	300
	1/2 -13	2200	660	550
	5/8 -11	3500	1050	875
	3/4 -10	5200	1560	1300
	7/8 -9	7200	2160	1800
	1-7	10000	3000	2500
	1-1/4 -6	15200	4560	3800
	1-1/2 -6	21400	6420	5350

Effect of Hoist Ring Angle on Load Angular Lifting Graph



ANCHOR SHACKLE/ALLOY RINGS

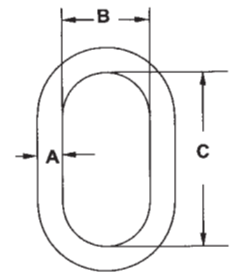
BOLT TYPE ANCHOR SHACKLE



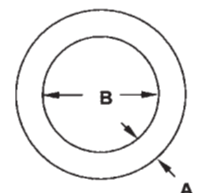
PART NO.	NOMINAL SHACKLE SIZE (IN.) C	WORKING LOAD LIMIT (LBS.)	DIMENSION									WEIGHT (lbs.)
			A	B	D	E	F	G	H	I	J	
36511	3/8	2,000	2.49	1.78	1.03	.66	1.44	.44	2.17	.38	.91	.33
36521	7/16	3,000	2.91	2.03	1.16	.75	1.69	.50	2.51	.44	1.06	.49
36531	1/2	4,000	3.28	2.31	1.31	.81	1.88	.63	2.80	.50	1.19	.79
36541	5/8	6,500	4.19	2.94	1.69	1.06	2.38	.75	3.53	.63	1.50	1.68
36551	7/8	13,000	5.83	4.03	2.28	1.44	3.31	1.00	4.71	.88	2.09	3.95
36561	1-1/8	19,000	7.47	5.16	2.91	1.81	4.25	1.25	6.00	1.13	2.69	8.27
36571	1-1/4	24,000	8.25	5.75	3.25	2.03	4.69	1.38	6.51	1.25	3.00	11.71

*NOTE: Minimum ultimate load is 6 times the working load limit.
Bolt type anchor shackles supplied with thin head bolt & nut with cotter pin.
Meets Federal Specification RR-C 271D, Type IVA, Grade A, Class 3

WELDLESS ALLOY RINGS



PART NO.	WORKING LOAD LIMIT (LBS.)	MATERIAL DIAMETER A	INSIDE DIA. OF RING B	LENGTH OF OVAL C	WEIGHT (LBS.)
36111	3,800	3/8	2		.23
36121	6,100	5/8	3		1.00
36131	18,400	1	4		3.40
36141	30,000	1 3/8	6		10.38
36151	49,000	1 1/2	5.25	10.5	15.70



NOTE: Minimum ultimate load is 6 times the working load limit.
Rings meet Federal Specification RR-C 271D, Type VI

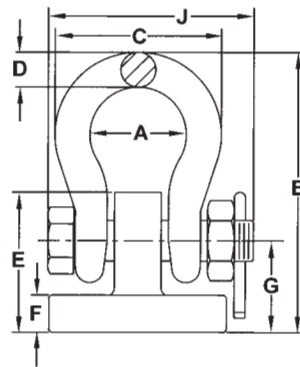
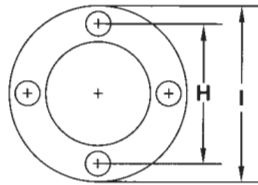
SHACKLE HOIST RINGS

The ADB Shackle Hoist Ring is used for OEM applications and permanent mounting on dies, molds, fixtures or equipment. Can be bolted or welded in place.

- Alloy Steel, Black Oxide Finish
- Pivot 180° and Swivel 360°
- Safety Factor = 5:1
- Meets OSHA standards
- 100% Magnetic Particle inspected
- Destructive testing by outside independent laboratories
- Ideal for lifting large and heavy structures

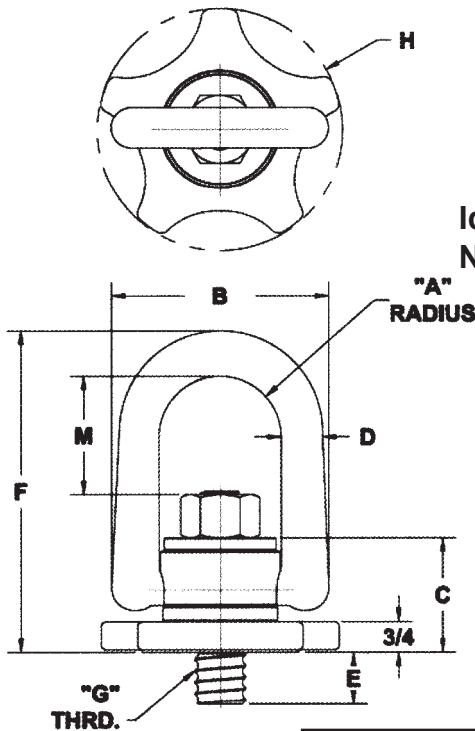


Patent No. 5,823,588



PART NUMBER	WORKING LOAD (lbs.)	SCREW SIZE	A	B	C	D	E	F	G	H	I	J	WEIGHT (lbs.)
36510	2000	1/4-20x1/2	1.03	2.96	1.78	0.38	1.43	0.40	0.91	1.56	2.10	2.17	0.80
36520	3000	5/16-18x1/2	1.16	3.55	2.03	0.44	1.76	0.52	1.16	1.76	2.40	2.51	1.30
36530	4000	3/8-16x5/8	1.31	3.91	2.31	0.50	1.91	0.52	1.21	2.10	2.90	2.80	2.04
36540	6500	7/16-14x3/4	1.69	4.97	2.94	0.69	2.41	0.64	1.51	2.56	3.50	3.53	3.80
36550	13000	5/8-11x1	2.28	6.85	4.03	0.97	3.31	0.90	2.06	3.40	4.60	4.71	9.55
36560	19000	3/4-10x1 1/4	2.91	8.75	5.16	1.25	4.01	1.14	2.61	4.00	5.40	5.09	18.10
36570	24000	7/8-9x2	3.25	9.68	5.75	1.38	4.51	1.30	2.91	4.50	6.10	6.51	25.70

NEW PRODUCTS



SPIN-N-LOK™ HOIST RING

Ideal for lifting and moving street/road plates
New lightweight design replaceable stud

- Pivot 180° •
- Material: High Tensile Alloy Steel •
- Finish: Black Oxide •
- Safety Factor: Minimum of 5:1 •
- 100% Magnetic Particle Inspected •

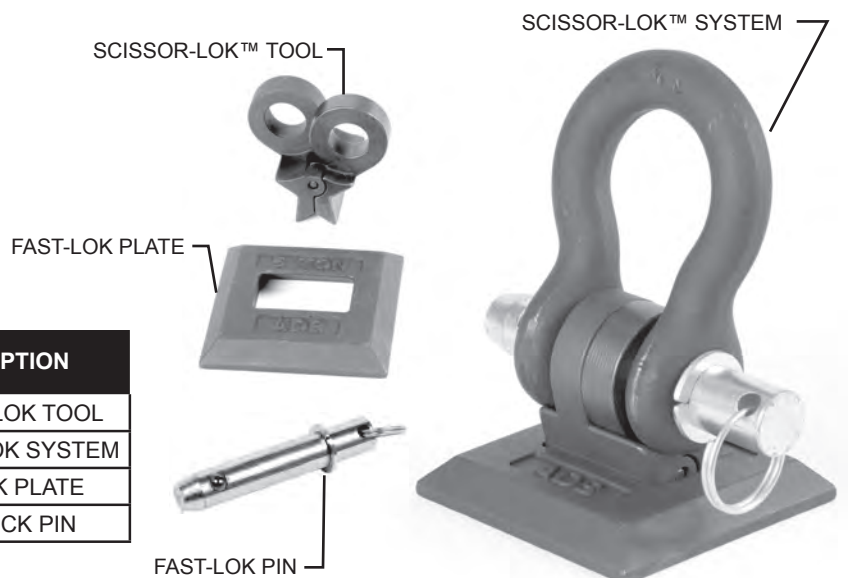


PART NO.	RATE LOAD LBS.	A	B	C	D	E	F	G	THRD TYPE	H	M	WT. lbs.
36950	10000	1.4	5.1	2.8	1	1	8 1/8	1 1/4	UNC	6	2.95	12.20
36955	10000	1.4	5.1	2.8	1	1	8 1/8	1 1/2	UNC	6	2.95	12.35
36960	10000	1.4	5.1	2.8	1	1	8 1/8	1 1/4	COIL	6	2.95	12.20
36965	10000	1.4	5.1	2.8	1	1	8 1/8	1 1/2	COIL	6	2.95	13.35

SCISSOR-LOK™ SYSTEM

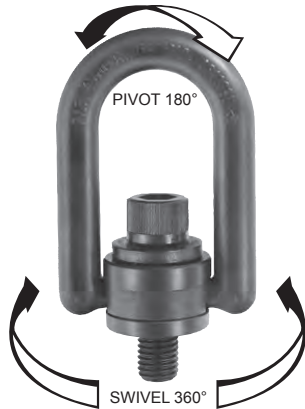
- Pivot 180°
- Material: High Tensile Alloy Steel
- Finish: Black Oxide
- Safety Factor: Minimum of 5:1
- 100% Magnetic Particle Inspected

Ideal for lifting and moving street/road plates
New lightweight design



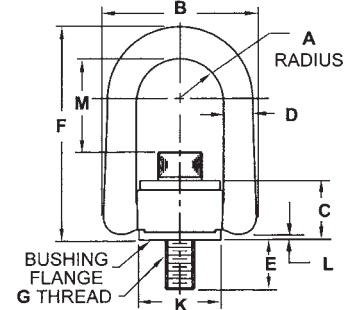
PART NO.	RATE LOAD LBS.	DESCRIPTION
36860	10000	SCISSOR-LOK TOOL
36865	10000	SCISSOR-LOK SYSTEM
36900	10000	FAST-LOK PLATE
36903	10000	FAST-LOCK PIN

HEAVY DUTY® HOIST RINGS



COMPLETE LINE THROUGH 30,000 POUNDS LOAD RANGE

- **MATERIAL:** Forged Alloy Steel With Minimum Tensile Strength of 180,000 psi.
- Range of movement: Pivot 180°, Swivel 360°
- **MINIMUM SAFETY FACTOR=5:1**
- Meets Military Specification No. MIL-STD 1365(11) or MIL-STD 209C
- American Heavy Duty Hoist Rings are specified and used in Nuclear Energy Equipment.
- 100% Magnetic Particle Inspected
- Meets OSHA Standards
- Destructive testing by outside independent laboratories



PATENT NO. 4,570,987*, 4,641,986*, 5,405,210. Other patents pending

PART NO.	RATED LOAD	A	B	C	D	E	F	G	K	L	M	TL* lbs-ft	WT lbs
33112	550	.65	2.29	.96	.44	.56	3.23	1/4-20	1.25	0.15	1.57	5	.50
33212	800	.65	2.29	.96	.44	.56	3.23	5/16-18	1.25	0.15	1.51	7	.52
33214	800	.65	2.29	.96	.44	1.06	3.23	5/16-18	1.25	0.15	1.51	7	.54
33312	1000	.65	2.29	.96	.44	.56	3.23	3/8-16	1.25	0.15	1.45	12	.56
33314	1000	.65	2.29	.96	.44	1.06	3.23	3/8-16	1.25	0.15	1.45	12	.58
33316	2250	.65	2.29	.96	.44	1.06	3.23	1/2-13	1.25	0.15	1.45	25	.60
33512	2500	1.00	3.50	1.50	.75	.75	5.31	1/2-13	1.89	0.17	2.56	28	1.71
• 33513	2500	1.00	3.50	1.50	.75	.75	6.87	1/2-13	1.89	0.17	4.12	28	2.04
33515	2500	1.00	3.50	1.50	.75	1.00	5.31	1/2-13	1.89	0.17	2.56	28	1.72
• 33505	2500	1.00	3.50	1.50	.75	1.00	6.87	1/2-13	1.89	0.17	4.12	28	2.05
33516	2500	1.00	3.50	1.50	.75	1.25	5.31	1/2-13	1.89	0.17	2.56	28	1.82
• 33517	2500	1.00	3.50	1.50	.75	1.25	6.87	1/2-13	1.89	0.17	4.12	28	2.15
33612	4000	1.00	3.50	1.50	.75	.75	5.31	5/8-11	1.89	0.17	2.44	60	1.76
• 33613	4000	1.00	3.50	1.50	.75	.75	6.87	5/8-11	1.89	0.17	4	60	2.09
33614	4000	1.00	3.50	1.50	.75	1.00	5.31	5/8-11	1.89	0.17	2.44	60	1.78
• 33604	4000	1.00	3.50	1.50	.75	1.00	6.87	5/8-11	1.89	0.17	4	60	2.11
33615	4000	1.00	3.50	1.50	.75	1.25	5.31	5/8-11	1.89	0.17	2.44	60	1.88
• 33616	4000	1.00	3.50	1.50	.75	1.25	6.87	5/8-11	1.89	0.17	4	60	2.21
33714	5000	1.00	3.50	1.50	.75	1.00	5.31	3/4-10	1.89	0.17	2.31	100	1.89
• 33715	5000	1.00	3.50	1.50	.75	1.00	6.87	3/4-10	1.89	0.17	3.87	100	2.22
33716	5000	1.00	3.50	1.50	.75	1.50	5.31	3/4-10	1.89	0.17	2.31	100	2.02
• 33717	5000	1.00	3.50	1.50	.75	1.50	6.87	3/4-10	1.89	0.17	3.87	100	2.35
33108	7000	1.40	5.10	2.05	1.00	.95	7.37	3/4-10	2.81	0.18	3.57	100	7.20
33102	7000	1.40	5.10	2.05	1.00	1.20	7.37	3/4-10	2.81	0.18	3.57	100	7.23
33103	7000	1.40	5.10	2.05	1.00	1.45	7.37	3/4-10	2.81	0.18	3.57	100	7.25
33101	8000	1.40	5.10	2.05	1.00	1.20	7.37	7/8-9	2.81	0.18	3.32	160	7.33
33104	8000	1.40	5.10	2.05	1.00	.95	7.37	7/8-9	2.81	0.18	3.32	160	7.33
33105	10000	1.40	5.10	2.05	1.00	1.45	7.37	1-8	2.81	0.18	3.20	230	7.57
33106	10000	1.40	5.10	2.05	1.00	1.20	7.37	1-8	2.81	0.18	3.20	230	7.63
33107	10000	1.40	5.10	2.05	1.00	2.20	7.37	1-8	2.81	0.18	3.20	230	7.81
33402	15000	2.00	6.75	2.87	1.25	1.88	9.22	1 1/4-7	3.88	0.18	3.74	470	15.74
33401	15000	2.00	6.75	2.87	1.25	2.63	9.22	1 1/4-7	3.88	0.18	3.74	470	16.0
33420	20000	2.00	6.75	2.87	1.25	2.63	9.22	1 3/8-6	3.88	0.32	3.62	670	17.2
33424	24000	2.00	6.75	2.87	1.25	2.63	9.22	1 1/2-6	3.88	0.32	3.49	800	18.1
33427	30000	2.00	6.75	2.87	1.25	2.96	9.22	2-4 1/2	3.88	0.32	3.49	800	22.9
33432	30000	2.00	6.75	2.87	1.25	2.96	9.22	2-8	3.88	0.32	3.49	800	22.9

• Long Bar Models. Long bar models for 7,000-10,000 lb. hoist rings are also available.
For load ranges of 50,000 to 100,000 lbs. refer to our safety engineered hoist rings.

*Recommended torque load.
Replacement screws are available.

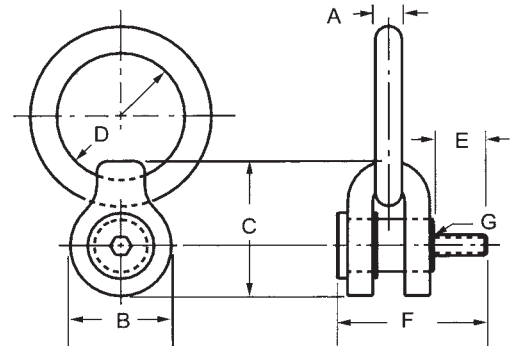
HEAVY DUTY HOIST RINGS ARE INTERCHANGEABLE WITH S.E.H.R.

SIDE PULL HOIST RINGS



The ADB SIDEPULL Hoist Ring is designed for side lifting. Full swivel and pivot action allows you to flip and turn parts without unhooking. The large weldless ring can accommodate larger hooks.

- Alloy Steel (Certified Heat Treat)
- 5:1 Safety Factor
- Swivel 360°
- Meets OSHA standards
- Magnaflux inspected
- Black Oxide Finish.
- Meets Military Specification No. MIL-STD-209C or MIL-STD-1365(11)



STANDARD

PART NUMBER	LOAD CAPACITY (lbs)	A	B	C	D	E	F	G	TORQUE* (lbs-ft)	WT. (lbs)
36110	650	3/8	1 1/2	2	2	5/8	2 5/16	5/16-18	3.5	.25
36115	800	3/8	1 1/2	2	2	3/4	2 5/8	3/8-16	4.5	.25
36120	1800	5/8	2 3/8	3 3/16	3	1	3 1/2	1/2-13	15.0	3.25
36125	2500	5/8	2 3/8	3 3/16	3	1 1/4	3 7/8	5/8-11	25.0	3.25
36130	4100	1	3 3/4	5	4	1 1/2	5 3/4	3/4-10	50.0	11.25
36135	7100	1	3 3/4	5	4	1 3/4	6	1-8	90.0	11.50
36140	14000	1 3/8	4 5/8	6 13/16	6	2	6 7/8	1 1/4-7	150.0	27.75
36143	14000	1 3/8	4 5/8	6 13/16	6	2	6 7/8	1 1/4-8	150.0	27.75
36145	17200	1 3/8	4 5/8	6 13/16	6	2 1/2	7 7/8	1 1/2-6	250.0	31.50
36148	17200	1 3/8	4 5/8	6 13/16	6	2 1/2	7 7/8	1 1/2-8	250.0	31.50
36150	29000	1 1/2	4 5/8	6 13/16	5 1/4 x 10 1/2	3 1/8	8 9/16	2-4 1/2	300.0	42.00
36155	29000	1 1/2	4 5/8	6 13/16	5 1/4 x 10 1/2	3 1/8	8 9/16	2-8	300.0	42.00

METRIC

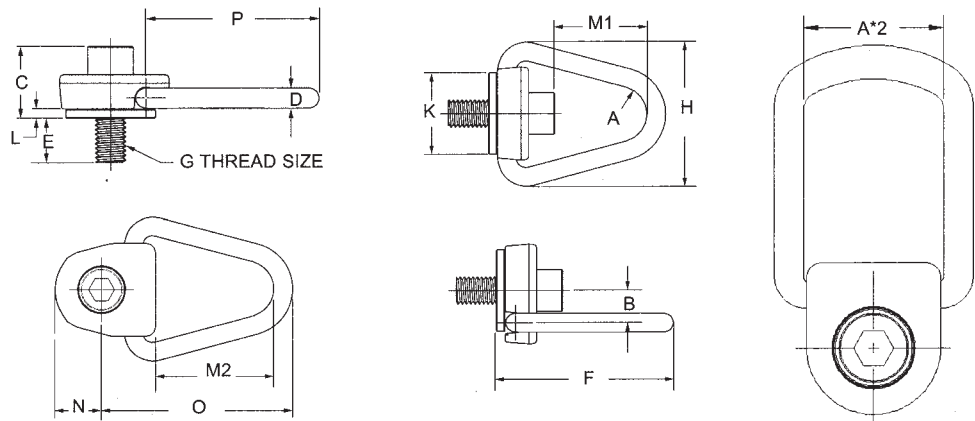
PART NUMBER	LOAD CAPACITY (kg)	A	B	C	D	E	F	G	TORQUE* (Nm)	WT. (kg)
36710	400	9.5	38.1	50.8	50.8	16.0	54.1	M8 x 1.25	8	0.1
36715	650	9.5	38.1	50.8	50.8	20.0	58.1	M10 x 1.5	16	0.1
36720	900	15.9	60.3	81.0	76.2	24.0	84.33	M12 x 1.75	27	1.5
36725	1600	15.9	60.3	81.0	76.2	32.0	120.9	M16 x 2.0	64	1.5
36730	2500	25.4	95.3	127.0	101.6	40.0	128.9	M20 x 2.5	125	5.2
36735	3500	25.4	95.3	127.0	101.6	48.0	136.9	M24 x 3.0	210	5.2
36740	5500	34.9	117.5	173.0	152.4	60.0	166.2	M30 x 3.5	413	12.6
36745	8000	34.9	117.5	173.0	152.4	72.0	178.2	M36 x 4.0	720	14.5
36748	11000	34.9	117.5	173.0	152.4	84.0	190.2	M42 x 4.5	1156	14.5
36750	14000	38.1	117.5	173.0	133.4 x 266.7	96.0	202.2	M48 x 5.0	1681	19.2
36755	25000	38.1	117.5	173.0	133.4 x 266.7	128.0	234.2	M64 x 6.0	4002	19.2

HEAVY DUTY® SIDE PULL HOIST RING



- Self-aligning in the direction of the load
- Rotates 360°
- Minimum of 5:1 safety factor in any direction
- Unit is supplied in one (1) piece so that parts cannot get lost.
- Alloy steel, black oxide finish
- 100% magnetic particle inspected

Patent No. 6,267,422



STANDARD

PART NUMBER	RATED LOAD (lbs.)	G	A	B	C	D	E	F	H	K	L	M1	M2	N	O	P	TL ft./lbs.	WEIGHT (LBS.)
36305	800	5/16-18	3/4	7/8	1 21/64	1/2	.479	4 23/32	3 7/8	2 3/16	7/32	2 57/64	3 3/16	1 1/4	5 1/8	4 1/4	7	2.05
36310	1000	3/8-16	3/4	7/8	1 25/64	1/2	.479	4 23/32	3 7/8	2 3/16	7/32	2 27/32	3 3/16	1 1/4	5 1/8	4 1/4	12	2.12
36315	2500	1/2-13	3/4	7/8	1 17/32	1/2	.979	4 23/32	3 7/8	2 3/16	7/32	2 45/64	3 3/16	1 1/4	5 1/8	4 1/4	28	2.12
36320	4000	5/8-11	3/4	7/8	1 41/64	1/2	.979	4 23/32	3 7/8	2 3/16	7/32	2 59/64	3 3/16	1 1/4	5 1/8	4 1/4	60	2.22
36325	5000	3/4-10	3/4	7/8	1 25/32	1/2	1.229	4 23/32	3 7/8	2 3/16	7/32	2 15/16	3 3/16	1 1/4	5 1/8	4 1/4	100	2.34
36330	7000	3/4-10	7/8	1 1/4	2 1/4	3/4	1 1/4	6 1/4	5 1/4	3 1/8	5/16	4	4 3/16	1 5/8	6 3/4	5 5/8	100	6.01
36335	8000	7/8-9	7/8	1 1/4	2 3/8	3/4	1 1/4	6 1/4	5 1/4	3 1/8	5/16	3 7/8	4 3/16	1 5/8	6 3/4	5 5/8	160	6.13
36340	10000	1-8	7/8	1 1/4	2 1/2	3/4	1 1/2	6 1/4	5 1/4	3 1/8	5/16	3 3/4	4 3/16	1 5/8	6 3/4	5 5/8	230	6.20

METRIC

PART NUMBER	RATED LOAD (KG)	G	A	B	C	D	E	F	H	K	L	M1	M2	N	O	P	TL N.M.	WEIGHT (KG)
36805	400	M8 X 1.25	19	22	34	13	14	120	99	56	5	73	81	32	130	108	9.5	.93
36810	450	M10 X 1.5	19	22	36	13	24	120	99	56	5	71	81	32	130	108	16.0	.96
36815	1050	M12 X 1.75	19	22	38	13	37	120	99	56	5	69	81	32	130	108	37.0	.96
36820	1900	M16 X 2.0	19	22	42	13	37	120	99	56	5	65	81	32	130	108	80.0	1.01
36825	2200	M20 X 2.5	19	22	46	13	37	120	99	56	5	61	81	32	130	108	135.0	1.07
36830	3000	M20 X 2.5	22	32	57	19	39	159	133	79	8	83	106	41	171	143	135.0	2.73
36835	4200	M24 X 3.0	22	32	61	19	43	159	133	79	8	79	106	41	171	143	311.0	2.78

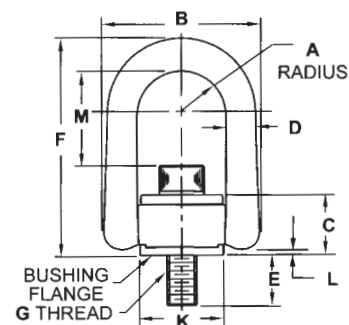
HEAVY DUTY® HOIST RINGS



Heavy Duty Hoist Rings - Metric

- **MATERIAL:** Forged Alloy Steel With Minimum Tensile Strength of 180,000 psi. Certified Heat Treatment With 100% Magnaflux Inspection.
- Corrosion Resistant Coating.
- All Hoist Rings Designed at 5:1 Safety Factor.

USEFUL CONVERSION DATA (Approximation)			
	To Convert From	To	Multiply By
Length	Millimeter (mm)	Inch (in)	0.03937
Force	Newton (N)	Pound-Force (lb)	0.22481
Stress	Newton/mm ² (N/mm ²)	Pound/Inch ² (psi)	145.04
Torque	Newton-Meter (Nm)	Pound-Foot (lbs-ft)	0.7376
Weight	Kilogram (kg)	Pound (lb)	2.204



PATENT NO. 4,570,987*,
4,641,986*,
5,405,210,
Other patents pending

PART NO.	RATED LOAD (kg)	A	B	C	D	E	F	G	K	L	M	TL* (Nm)	WT (kg)
34212	400	16.5	58.2	24.4	11.1	16	82.0	M8x1.25	31.8	4.0	38.5	9.5	.24
34214	400	16.5	58.2	24.4	11.1	21	82.0	M8x1.25	31.8	4.0	38.5	9.5	.25
34312	450	16.5	58.2	24.4	11.1	16	82.0	M10x1.5	31.8	4.0	36.5	16.0	.25
34314	450	16.5	58.2	24.4	11.1	26	82.0	M10x1.5	31.8	4.0	36.5	16.0	.26
34515	1050	25.4	88.9	38.1	19.1	25	134.9	M12x1.75	48.0	4.4	65.0	37.0	.78
• 34505	1050	25.4	88.9	38.1	19.1	25	174.6	M12x1.75	48.0	4.4	104.7	37.0	.93
34516	1050	25.4	88.9	38.1	19.1	32	134.9	M12x1.75	48.0	4.4	65.0	37.0	.83
• 34517	1050	25.4	88.9	38.1	19.1	32	174.6	M12x1.75	48.0	4.4	104.7	37.0	.98
34614	1900	25.4	88.9	38.1	19.1	25	134.9	M16x2.0	48.0	4.4	62.0	80.0	.81
• 34604	1900	25.4	88.9	38.1	19.1	25	174.6	M16x2.0	48.0	4.4	101.7	80.0	.96
34615	1900	25.4	88.9	38.1	19.1	32	134.9	M16x2.0	48.0	4.4	62.0	80.0	.85
• 34616	1900	25.4	88.9	38.1	19.1	32	174.6	M16x2.0	48.0	4.4	101.7	80.0	1.00
34714	2200	25.4	88.9	38.1	19.1	25	134.9	M20x2.5	48.0	4.4	58.7	135.0	.86
• 34715	2200	25.4	88.9	38.1	19.1	25	174.6	M20x2.5	48.0	4.4	98.4	135.0	1.01
34716	2200	25.4	88.9	38.1	19.1	38	134.9	M20x2.5	48.0	4.4	58.7	135.0	.92
• 34717	2200	25.4	88.9	38.1	19.1	38	174.6	M20x2.5	48.0	4.4	98.4	135.0	1.07
34101	3000	35.6	129.5	52.1	25.4	28	187.2	M20x2.5	71.4	4.6	89.7	135.0	3.14
34102	4200	35.6	129.5	52.1	25.4	28	187.2	M24x3.0	71.4	4.6	85.7	311.0	3.29
34103	4200	35.6	129.5	52.1	25.4	38	187.2	M24x3.0	71.4	4.6	85.7	311.0	3.30
34105	4500	35.6	129.5	52.1	25.4	38	187.2	M30x3.5	71.4	4.6	79.7	311.0	3.44
34107	4500	35.6	129.5	52.1	25.4	48	187.2	M30x3.5	71.4	4.6	79.7	311.0	3.55
34401	7000	50.8	171.5	72.9	31.8	67	234.2	M30x3.5	98.5	8.2	95.0	637.2	7.26
34402	11000	50.8	171.5	72.9	31.8	67	234.2	M36x4.0	98.5	8.2	88.6	1085.5	8.21
34403	12500	50.8	171.5	72.9	31.8	80	234.2	M42x4.5	98.5	8.2	88.6	1085.5	10.14
34404	13500	50.8	171.5	72.9	31.8	80	234.2	M48x5.0	98.5	8.2	88.6	1085.5	10.59

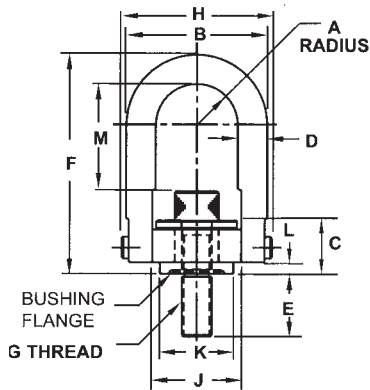
• Long Bar Models. Long bar models for 3,000-4,500 kg hoist rings are also available.
Replacement screws are available.

*Recommended torque load.

NOTE: DIMENSIONS ARE IN MILLIMETER.

*Patent expired

SAFETY ENGINEERED HOIST RINGS



HOIST RING MATERIAL: Alloy steel (Certified heat treatment). Black Oxide *.

SAFETY FACTOR: 5:1

RANGE OF MOVEMENT: 360° Swivel, 180° Pivot.

INSTALLATION: Tap workpiece for hoist ring screw with axis vertical to mounting surface.

Work surface should be flat and smooth to provide full 360° flush seating for the bushing flange. (SAFETY NOTE: Some loosening may develop after prolonged service in a permanent installation. It is advisable to periodically re-tighten the mounting screw to maintain the specified torque value.) The use of free fit spacers between the bushing flange and mounting surface is not recommended as this will reduce the safe load rating on angularly applied loads. Hoist Ring must be free to swivel 360° and pivot 180° at all times.

* Also available in Nickel or Cad Plated. (Price per Factory Quotation)

All dimensions approximate — variations do not affect use or safety factor.

PART NUMBER	RATED LOAD	A	B	C	D	E ± .060	F ± .060	G	H ± .060	J	K	L	M	TL* lbs-ft	Weight
23050	550	.43	1.61	.71	3/8	.54	2.67	1/4-20	1.84	1.00	.75	.17	1.33	5	5 oz.
23051	800	.43	1.61	.71	3/8	.29	2.67	5/16-18	1.84	1.00	.75	.17	1.27	7	5 oz.
23052	800	.43	1.61	.71	3/8	.54	2.67	5/16-18	1.84	1.00	.75	.17	1.27	7	5 oz.
23053	1,000	.43	1.61	.71	3/8	.54	2.67	3/8-16	1.84	1.00	.75	.17	1.21	12	5 oz.
23301	2,500	.70	2.40	.93	1/2	1.07	3.77	1/2-13	2.58	1.49	1.25	.20	1.84	28	1 lb
23004	2,500	.88	3.25	1.22	3/4	.78	4.78	1/2-13	3.52	1.99	1.50	.16	2.31	28	2 lb. 5 oz
• 23322	2,500	.88	3.25	1.22	3/4	.78	6.72	1/2-13	3.52	1.99	1.50	.16	4.25	28	2 lb. 12 oz
23005	2,500	.88	3.25	1.22	3/4	1.03	4.78	1/2-13	3.52	1.99	1.50	.16	2.31	28	2 lb. 5 oz
• 23323	2,500	.88	3.25	1.22	3/4	1.03	6.72	1/2-13	3.52	1.99	1.50	.16	4.25	28	2 lb
23006	2,500	.88	3.25	1.22	3/4	1.28	4.78	1/2-13	3.52	1.99	1.50	.16	2.31	28	2 lb. 5 oz
• 23324	2,500	.88	3.25	1.22	3/4	1.28	6.72	1/2-13	3.52	1.99	1.50	.16	4.25	28	2 lb. 12 oz
23001	4,000	.88	3.25	1.22	3/4	.78	4.78	5/8-11	3.52	1.99	1.50	.16	2.18	60	2 lb. 7 oz
23002	4,000	.88	3.25	1.22	3/4	1.03	4.78	5/8-11	3.52	1.99	1.50	.16	2.18	60	2 lb. 7 oz
• 23320	4,000	.88	3.25	1.22	3/4	1.03	6.72	5/8-11	3.52	1.99	1.50	.16	4.12	60	2 lb. 14 oz
23003	4,000	.88	3.25	1.22	3/4	1.28	4.78	5/8-11	3.52	1.99	1.50	.16	2.18	60	2 lb. 7 oz
• 23321	4,000	.88	3.25	1.22	3/4	1.28	6.72	5/8-11	3.52	1.99	1.50	.16	4.12	60	2 lb. 14 oz
23007	5,000	.88	3.25	1.22	3/4	1.03	4.78	3/4-10	3.52	1.99	1.50	.16	2.06	100	2 lb. 9 oz
• 23325	5,000	.88	3.25	1.22	3/4	1.03	6.72	3/4-10	3.52	1.99	1.50	.16	4.00	100	3 lb
23009	5,000	.88	3.25	1.22	3/4	1.53	4.78	3/4-10	3.52	1.99	1.50	.16	2.06	100	2 lb. 9 oz
• 23327	5,000	.88	3.25	1.22	3/4	1.53	6.72	3/4-10	3.52	1.99	1.50	.16	4.00	100	3 lb
23102	7,000	1.40	4.80	1.71	1"	1.04	6.52	3/4-10	5.14	3.00	2.37	.24	3.06	100	6 lb. 10 oz
• 23329	7,000	1.40	4.80	1.71	1"	1.04	8.11	3/4-10	5.14	3.00	2.37	.24	4.65	100	7 lb. 4 oz
23103	7,000	1.40	4.80	1.71	1"	1.54	6.52	3/4-10	5.14	3.00	2.37	.24	3.06	100	6 lb. 10 oz
• 23330	7,000	1.40	4.80	1.71	1"	1.54	8.11	3/4-10	5.14	3.00	2.37	.24	4.65	100	6 lb. 10 oz
23101	8,000	1.40	4.80	1.71	1"	1.04	6.52	7/8-9	5.14	3.00	2.37	.24	2.93	160	6 lb. 12 oz
• 23328	8,000	1.40	4.80	1.71	1"	1.04	8.11	7/8-9	5.14	3.00	2.37	.24	4.52	160	6 lb. 12 oz
23105	10,000	1.40	4.80	1.71	1"	1.29	6.52	1"-8	5.14	3.00	2.37	.24	2.81	230	7 lb
• 23331	10,000	1.40	4.80	1.71	1"	1.29	8.11	1"-8	5.14	3.00	2.37	.24	4.40	230	7 lb
23106	10,000	1.40	4.80	1.71	1"	1.54	6.52	1"-8	5.14	3.00	2.37	.24	2.81	230	7 lb
• 23332	10,000	1.40	4.80	1.71	1"	1.54	8.11	1"-8	5.14	3.00	2.37	.24	4.40	230	7 lb
23107	10,000	1.40	4.80	1.71	1"	2.29	6.52	1"-8	5.14	3.00	2.37	.24	2.81	230	7 lb
• 23333	10,000	1.40	4.80	1.71	1"	2.29	8.11	1"-8	5.14	3.00	2.37	.24	4.40	230	7 lb
23401	15,000	1.75	6.00	2.11	1-1/4	1.89	8.73	1-1/4"-7	6.50	3.76	3.20	.35	4.12	470	14 lb
23202	24,000	2.25	8.00	2.81	1-3/4	2.70	12.47	1-1/2"-6	8.55	4.87	4.20	.47	6.41	800	33 lb. 12 oz
23200	30,000	2.25	8.00	2.81	1-3/4	2.96	12.47	2"-4-1/2	8.55	4.87	4.20	.47	5.41	800	36 lb
**23201	30,000	2.25	8.00	2.81	1-3/4	2.96	12.47	2"-4-1/2	8.55	4.87	4.20	.47	5.41	800	36 lb
23501	50,000	3.00	10.50	4.09	2-1/4	4.00	16.87	2-1/2"-8	11.67	6.52	5.75	1.12	8.03	2100	87 lb. 8 oz
23503	50,000	3.00	10.50	4.09	2-1/4	4.00	16.87	2-1/2"-4	11.67	6.52	5.75	1.12	8.03	2100	87 lb. 8 oz
23600	75,000	3.75	13.00	5.27	2-3/4	5.20	19.50	3"-4	14.15	8.10	7.25	1.00	8.48	4300	166 lb
23701	100,000	4.00	14.50	6.06	3-1/4	7.00	22.09	3-1/2"-4	15.90	8.60	7.75	1.09	9.28	6600	240 lb

150,000, 200,000, and 250,000 lbs. sizes available.

* Long Bar Model * Recommended Torque Load

** Supplied with socket head cap screw.

FLIP-FLOP HOIST RINGS

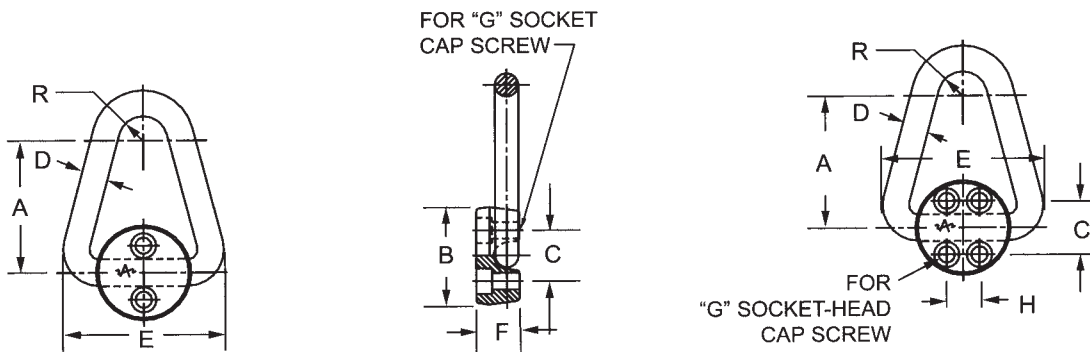


- Forged Chrome Moly Steel
- Heat Treated
- Black Oxide Finish
- Pivot 180°
- 6:1 Safety Factor
- High strength screws are 100% Manaflex Inspected
- Rings and bodies are Manaflexed per ASTM 1444-94A

PART NO. †	PART NO. (WITH SCREWS)	RATED LOAD* (LBS)	A	B	C	D	E	F	G	H	R	INSTALLATION TORQUE (FT-LBS)	WEIGHT (LBS.) †	WEIGHT WITH SCREWS (LBS.)
34030	34030S	2,000	2"	1-3/4"	1"	5/16"	2-1/2"	3/4"	5/16 (2 PLCS)	0	1/2"	4-7	.54	.58
34035	34035S	2,500	2-1/2"	2-1/4"	1-1/8"	3/8"	3-3/16"	7/8"	3/8 (2 PLCS)	0	5/8"	7-10	1.02	1.07
34040	34040S	5,000	3"	2-5/8"	1-1/2"	1/2"	3-7/8"	1-1/8"	1/2 (2 PLCS)	0	3/4"	20-25	1.92	2.06
34045	34045S	12,000	4"	3-1/8"	1-5/8"	3/4"	5-1/4"	1-3/8"	1/2 (4 PLCS)	1-1/4"	7/8"	20-25	3.94	4.10
34050	34050S	20,000	5"	3-5/8"	2-1/16"	1"	6-3/16"	1-7/8"	5/8 (4 PLCS)	1-1/4"	1"	42-50	7.44	7.94

*To obtain maximum load capacity, high strength screws must be used.

† Mounting Screws Not Included



*HIGH STRENGTH SCREW

PART NO.	USED P/N	SCREW THD	SCREW LENGTH	WEIGHT (LBS.)
23812	34030	5/16-18	1-1/4"	.04
23813	34035	3/8-16	1-1/4"	.05
23804	34040	1/2-13	2"	.14
23805	34045	1/2-13	2-1/4"	.16
33645	34050	5/8-11	2-3/4"	.50

EZ-Torque™ HOIST RINGS

Patent 6,199,925

Exclusively from ADB, the world's largest manufacturer of Safety Hoist Rings

ADB, the originator and leader in safety hoist rings, introduces another time and money saving innovation.



Patent 6,199,925

ADB's new **patented** EZ-Torque™ Hoist Ring eliminates the need of locating and using expensive hydraulic tensioners or torque multipliers for heavy load (WLL) capacity hoist rings.

A 75,000 lb. WLL Hoist Ring requires the mounting bolt to be torqued to 4,300 lbs-ft. ADB's EZ-Torque requires only a standard torque wrench and 92 lbs-ft of torque per screw.

STANDARD All dimensions approximate - variations do not effect use or safety factor.

Part No.	Rated Load (Lbs.)	A	B	C	D	E +/-12	F +/-12	G	H +/-12	J	K	L	M	*TL ft-lb	EZ-Torque™ ft-lb	Weight (Lbs.)
23490	15,000	1.75	6.0	2.11	1 1/4	1.89	8.73	1-1/4"-7	6.50	3.76	3.20	0.35	3.88	470	10	16.00
23494	24,000	2.25	8.0	2.81	1 3/4	2.70	12.47	1-1/2"-6	8.55	4.87	4.20	0.47	6.12	800	18	37.75
23290	30,000	2.25	8.0	2.81	1 3/4	2.96	12.47	2"-4-1/2	8.55	4.87	4.20	0.47	6.12	800	23	39.00
23590	50,000	3.00	10.5	4.09	2 1/4	4.00	16.87	2-1/2"-8	11.67	6.52	5.75	1.12	7.73	2100	49	92.00
23592	50,000	3.00	10.5	4.09	2 1/4	4.00	16.87	2-1/2"-4	11.67	6.52	5.75	1.12	7.73	2100	49	92.00
23690	75,000	3.75	13.0	5.27	2 3/4	5.20	19.50	3"-4	14.15	8.10	7.25	1.00	8.53	4300	92	174.60
23790	100,000	4.00	14.5	6.06	3 1/4	7.00	22.09	3-1/2"-4	15.90	8.60	7.75	1.09	9.28	6600	98	246.94
23792	150,000	5.00	18.0	7.50	4	8.50	27.38	4 1/4"-4	19.69	10.75	9.87	1.33	12.93	12000	123	527.00
23794	200,000	6.00	22.0	9.00	5	9.00	33.00	5"-4	24.00	13.00	12.38	1.88	15.00	19800	193	763.00
23798	250,000	6.00	22.0	9.00	5	9.00	33.00	6"-4	24.00	13.00	12.38	1.88	15.00	29000	207	841.00

METRIC All dimensions approximate - variations do not effect use or safety factor. Dimensions are in millimeters.

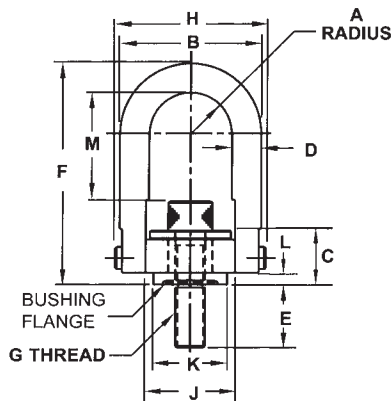
Part No.	Rated Load (Kg)	A	B	C	D	E +/-3	F +/-3	G	H +/-3	J	K	L	M	*TL (Nm)	EZ-Torque™ (Nm)	Weight (Kg)
24490	7,000	44.5	152.4	53.6	31.8	66	221.7	M30x3.5	165.1	95.5	81.3	8.9	106.3	637.2	13.5	7.26
24494	11,000	57.2	203.2	71.4	44.5	69	316.7	M36x4.0	217.2	123.7	106.7	11.9	164.8	1085.5	20.8	17.13
24498	12,500	57.2	203.2	71.4	44.5	79	316.7	M42x4.5	217.2	123.7	106.7	11.9	158.8	1085.5	21.6	17.13
24290	13,500	57.2	203.2	71.4	44.5	79	316.7	M48x5.0	217.2	123.7	106.7	11.9	152.8	1085.5	21.3	17.69
24592	22,000	76.2	266.7	104.0	57.2	102	428.5	M64x6.0	296.4	165.6	146.1	28.4	203.3	2847.5	53.9	41.73
24690	31,500	95.2	330.2	133.9	69.8	132	495.3	M72x6.0	368.3	205.7	184.1	25.4	215.4	5670.0	124.7	79.20
24790	51,000	101.6	368.3	153.9	82.5	178	561.1	M90x6.0	403.9	218.4	196.8	27.7	235.7	9560.0	132.8	112.01

* Standard Torque Load.

SAFETY ENGINEERED HOIST RINGS



Safety Engineered Hoist Rings - Metric



PATENT NO. 3,297,293*,
4,705,422*,
5,848,815*,

- MATERIAL: 4140 Aircraft Quality High Strength Alloy Steel With Minimum Tensile Strength of 1200 N/mm². Certified Heat Treatment With 100% Magnaflux Inspection.
- Corrosion Resistant Coating.
- All Hoist Rings Designed at 5:1 Safety Factor.

USEFUL CONVERSION DATA (Approximation)			
	To Convert From	To	Multiply By
Length	Millimeter (mm)	Inch (in)	0.03937
Force	Newton (N)	Pound-Force (lb)	0.22481
Stress	Newton/mm ² (N/mm ²)	Pound/Inch ² (psi)	145.04
Torque	Newton-Meter (Nm)	Pound-Foot (lbs-ft)	0.7376
Weight	Kilogram (kg)	Pound (lb)	2.204

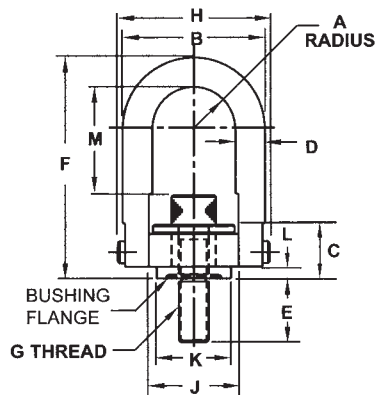
PART NUMBER	RATED LOAD (kg)	A	B	C	D	E	F	G	H	J	K	L	M	TL * (Nm)	WT. (kg)
24008	400	10.9	40.9	18.0	9.5	17	67.8	M8 x 1.25	46.7	25.4	19.1	4.3	32.1	9.5	0.14
24010	450	10.9	40.9	18.0	9.5	17	67.8	M10 x 1.5	46.7	25.4	19.1	4.3	30.2	16.0	0.14
• 24012	1050	22.4	82.5	31.0	19.0	19	121.4	M12 x 1.75	89.4	50.5	38.0	4.1	59.4	37.0	1.05
• 24016	1900	22.4	82.5	31.0	19.0	24	121.4	M16 x 2.0	89.4	50.5	38.0	4.1	55.4	80.0	1.11
• 24020	2200	22.4	82.5	31.0	19.0	30	121.4	M20 x 2.5	89.4	50.5	38.0	4.1	51.4	135.0	1.16
• 24022	3000	35.6	121.2	43.4	25.4	29	165.8	M20 x 2.5	130.5	76.2	58.7	6.1	77.0	135.0	3.06
• 24024	4200	35.6	121.2	43.4	25.4	34	165.8	M24 x 3.0	130.5	76.2	58.7	6.1	73.0	311.0	3.18
• 24030	4500	35.6	121.2	43.4	25.4	54	165.8	M30 x 3.5	130.5	76.2	58.7	6.1	67.0	311.0	3.30
24040	7000	44.5	152.4	53.6	31.8	46	221.7	M30 x 3.5	165.1	95.5	81.3	8.9	106.3	637.2	6.36
24042	7000	44.5	152.4	53.6	31.8	66	221.7	M30 x 3.5	165.1	95.5	81.3	8.9	106.3	637.2	6.70
24050	11000	57.2	203.2	71.4	44.5	69	316.7	M36 x 4.0	217.2	123.7	106.7	11.9	164.8	1085.5	15.34
24052	12500	57.2	203.2	71.4	44.5	79	316.7	M42 x 4.5	217.2	123.7	106.7	11.9	158.8	1085.5	15.91
24054	13500	57.2	203.2	71.4	44.5	79	316.7	M48 x 5.0	217.2	123.7	106.7	11.9	152.8	1085.5	16.36
24060	22000	76.2	266.7	104.0	57.2	102	428.5	M64 x 6.0	296.4	165.6	146.1	28.4	203.3	2847.5	39.77
24062	31500	95.25	330.20	133.9	69.85	132	495.30	M72 x 6.0	368.30	205.74	184.15	25.40	215.39	5670.00	75.45
24064	51000	101.60	368.30	153.9	82.55	178	561.09	M90 x 6.0	403.86	218.44	196.85	27.69	235.71	9560.00	109.09

• Long Bar Model Also Available

* Recommended torque load

NOTE: DIMENSIONS ARE IN MILLIMETER.

SAFETY ENGINEERED HOIST RINGS



Stainless Steel

HOIST RING MATERIAL: 300 Series Stainless Steel

SAFETY FACTOR: 5:1

RANGE OF MOVEMENT: 360° Swivel, 180° Pivot.

NDT: 100 % Liquid Penetrant Tested Per ASTM-E 1417

PURIFICATION PROCESS: Clean & Passivate Per MIL-S-5002, QQ-P-35 TYPE II

TYPICAL APPLICATIONS: Use Stainless for Corrosive, Cryogenic or Elevated Temperature Environments.

All dimensions approximate — variations do not affect use or safety factor.

PART NUMBER	RATED LOAD	A	B	C	D	E ± .060	F ± .060	G	H ± .060	J	K	L	M	TL* lbs-ft	Weight
29050	275	.43	1.61	.71	3/8	.54	2.67	1/4-20	1.84	1.00	.75	.17	1.33	2.5	5 oz.
29051	400	.43	1.61	.71	3/8	.29	2.67	5/16-18	1.84	1.00	.75	.17	1.27	3.5	5 oz.
29052	400	.43	1.61	.71	3/8	.54	2.67	5/16-18	1.84	1.00	.75	.17	1.27	3.5	5 oz.
29053	500	.43	1.61	.71	3/8	.54	2.67	3/8-16	1.84	1.00	.75	.17	1.21	6	5 oz.
29301	1,250	.70	2.40	.93	1/2	1.07	3.77	1/2-13	2.58	1.49	1.25	.20	1.84	14	1 lb
29004	1,250	.88	3.25	1.22	3/4	.78	4.78	1/2-13	3.52	1.99	1.50	.16	2.31	14	2 lb. 5 oz
• 29322	1,250	.88	3.25	1.22	3/4	.78	6.72	1/2-13	3.52	1.99	1.50	.16	4.25	14	2 lb. 12 oz
29005	1,250	.88	3.25	1.22	3/4	1.03	4.78	1/2-13	3.52	1.99	1.50	.16	2.31	14	2 lb. 5 oz
• 29323	1,250	.88	3.25	1.22	3/4	1.03	6.72	1/2-13	3.52	1.99	1.50	.16	4.25	14	2 lb
29006	1,250	.88	3.25	1.22	3/4	1.28	4.78	1/2-13	3.52	1.99	1.50	.16	2.31	14	2 lb. 5 oz
• 29324	1,250	.88	3.25	1.22	3/4	1.28	6.72	1/2-13	3.52	1.99	1.50	.16	4.25	14	2 lb. 12 oz
29001	2,000	.88	3.25	1.22	3/4	.78	4.78	5/8-11	3.52	1.99	1.50	.16	2.18	30	2 lb. 7 oz
29002	2,000	.88	3.25	1.22	3/4	1.03	4.78	5/8-11	3.52	1.99	1.50	.16	2.18	30	2 lb. 7 oz
• 29320	2,000	.88	3.25	1.22	3/4	1.03	6.72	5/8-11	3.52	1.99	1.50	.16	4.12	30	2 lb. 14 oz
29003	2,000	.88	3.25	1.22	3/4	1.28	4.78	5/8-11	3.52	1.99	1.50	.16	2.18	30	2 lb. 7 oz
• 29321	2,000	.88	3.25	1.22	3/4	1.28	6.72	5/8-11	3.52	1.99	1.50	.16	4.12	30	2 lb. 14 oz
29007	2,500	.88	3.25	1.22	3/4	1.03	4.78	3/4-10	3.52	1.99	1.50	.16	2.06	50	2 lb. 9 oz
• 29325	2,500	.88	3.25	1.22	3/4	1.03	6.72	3/4-10	3.52	1.99	1.50	.16	4.00	50	3 lb
29009	2,500	.88	3.25	1.22	3/4	1.53	4.78	3/4-10	3.52	1.99	1.50	.16	2.06	50	2 lb. 9 oz
• 29327	2,500	.88	3.25	1.22	3/4	1.53	6.72	3/4-10	3.52	1.99	1.50	.16	4.00	50	3 lb
29102	3,500	1.40	4.80	1.71	1"	1.04	6.52	3/4-10	5.14	3.00	2.37	.24	3.06	50	6 lb. 10 oz
• 29329	3,500	1.40	4.80	1.71	1"	1.04	8.11	3/4-10	5.14	3.00	2.37	.24	4.65	50	7 lb. 4 oz
29103	3,500	1.40	4.80	1.71	1"	1.54	6.52	3/4-10	5.14	3.00	2.37	.24	3.06	50	6 lb. 10 oz
• 29330	3,500	1.40	4.80	1.71	1"	1.54	8.11	3/4-10	5.14	3.00	2.37	.24	4.65	50	6 lb. 10 oz
29101	4,000	1.40	4.80	1.71	1"	1.04	6.52	7/8-9	5.14	3.00	2.37	.24	2.93	80	6 lb. 12 oz
• 29328	4,000	1.40	4.80	1.71	1"	1.04	8.11	7/8-9	5.14	3.00	2.37	.24	4.52	80	6 lb. 12 oz
29105	5,000	1.40	4.80	1.71	1"	1.29	6.52	1"-8	5.14	3.00	2.37	.24	2.81	115	7 lb
• 29331	5,000	1.40	4.80	1.71	1"	1.29	8.11	1"-8	5.14	3.00	2.37	.24	4.40	115	7 lb
29106	5,000	1.40	4.80	1.71	1"	1.54	6.52	1"-8	5.14	3.00	2.37	.24	2.81	115	7 lb
• 29332	5,000	1.40	4.80	1.71	1"	1.54	8.11	1"-8	5.14	3.00	2.37	.24	4.40	115	7 lb
29107	5,000	1.40	4.80	1.71	1"	2.29	6.52	1"-8	5.14	3.00	2.37	.24	2.81	115	7 lb
• 29333	5,000	1.40	4.80	1.71	1"	2.29	8.11	1"-8	5.14	3.00	2.37	.24	4.40	115	7 lb
29401	7,500	1.75	6.00	2.11	1-1/4	1.89	8.73	1-1/4"-7	6.50	3.76	3.20	.35	4.12	235	14 lb
29202	12,000	2.25	8.00	2.81	1-3/4	2.70	12.47	1-1/2"-6	8.55	4.87	4.20	.47	6.41	400	33 lb. 12 oz
29200	15,000	2.25	8.00	2.81	1-3/4	2.96	12.47	2"-4-1/2	8.55	4.87	4.20	.47	5.41	400	36 lb
29501	25,000	3.00	10.50	4.09	2-1/4	4.00	16.87	2-1/2"-8	11.67	6.52	5.75	1.12	8.03	1050	87 lb. 8 oz
29503	25,000	3.00	10.50	4.09	2-1/4	4.00	16.87	2-1/2"-4	11.67	6.52	5.75	1.12	8.03	1050	87 lb. 8 oz
29600	37,500	3.75	13.00	5.27	2-3/4	5.20	19.50	3"-4	14.15	8.10	7.25	1.00	8.48	2150	166 lb
29701	50,000	4.00	14.50	6.06	3-1/4	7.00	22.09	3-1/2"-4	15.90	8.60	7.75	1.09	9.28	3300	240 lb

• Long Bar Model

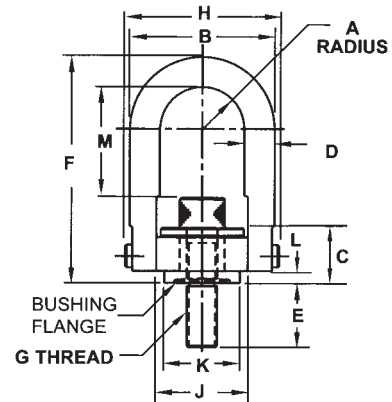
* Recommended Torque Load

SAFETY ENGINEERED HOIST RINGS



Stainless Steel - Metric

HOIST RING MATERIAL: 300 Series Stainless Steel
SAFETY FACTOR: 5:1
RANGE OF MOVEMENT: 360° Swivel, 180° Pivot.
NDT: 100 % Liquid Penetrant Tested Per ASTM-E 1417
PURIFICATION PROCESS: Clean & Passivate Per MIL-S-5002, QQ-P-35 TYPE II
TYPICAL APPLICATIONS: Use Stainless for Corrosive, Cryogenic or Elevated Temperature Environments.



USEFUL CONVERSION DATA (Approximation)			
	To Convert From	To	Multiply By
Length	Millimeter (mm)	Inch (in)	0.03937
Force	Newton (N)	Pound-Force (lb)	0.22481
Stress	Newton/mm ² (N/mm ²)	Pound/Inch ² (psi)	145.04
Torque	Newton-Meter (Nm)	Pound-Foot (lbs-ft)	0.7376
Weight	Kilogram (kg)	Pound (lb)	2.204

PART NUMBER	RATED LOAD (kg)	A	B	C	D	E	F	G	H	J	K	L	M	TL * (Nm)	WT. (kg)
29808	200	10.9	40.9	18.0	9.5	17	67.8	M8 x 1.25	46.7	25.4	19.1	4.3	32.1	4.75	0.14
29810	225	10.9	40.9	18.0	9.5	17	67.8	M10 x 1.5	46.7	25.4	19.1	4.3	30.2	8.0	0.14
• 29812	525	22.4	82.5	31.0	19.0	19	121.4	M12 x 1.75	89.4	50.5	38.0	4.1	59.4	18.5	1.05
• 29816	950	22.4	82.5	31.0	19.0	24	121.4	M16 x 2.0	89.4	50.5	38.0	4.1	55.4	40.0	1.11
• 29820	1100	22.4	82.5	31.0	19.0	30	121.4	M20 x 2.5	89.4	50.5	38.0	4.1	51.4	67.5	1.16
• 29822	1500	35.6	121.2	43.4	25.4	29	165.8	M20 x 2.5	130.5	76.2	58.7	6.1	77.0	67.5	3.06
• 29824	2100	35.6	121.2	43.4	25.4	34	165.8	M24 x 3.0	130.5	76.2	58.7	6.1	73.0	155.5	3.18
• 29830	2250	35.6	121.2	43.4	25.4	54	165.8	M30 x 3.5	130.5	76.2	58.7	6.1	67.0	155.5	3.30
29840	3500	44.5	152.4	53.6	31.8	46	221.7	M30 x 3.5	165.1	95.5	81.3	8.9	106.3	318.6	6.36
29842	3500	44.5	152.4	53.6	31.8	66	221.7	M30 x 3.5	165.1	95.5	81.3	8.9	106.3	318.6	6.70
29850	5500	57.2	203.2	71.4	44.5	69	316.7	M36 x 4.0	217.2	123.7	106.7	11.9	164.8	542.7	15.34
29852	6250	57.2	203.2	71.4	44.5	79	316.7	M42 x 4.5	217.2	123.7	106.7	11.9	158.8	542.7	15.91
29854	7250	57.2	203.2	71.4	44.5	79	316.7	M48 x 5.0	217.2	123.7	106.7	11.9	152.8	542.7	16.36
29860	11000	76.2	266.7	104.0	57.2	102	428.5	M64 x 6.0	296.4	165.6	146.1	28.4	203.3	1423.7	39.77

• Long Bar Model Also Available

* Recommended Torque Load